

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method of forming a semi-permanent connection between a
5 substantially flat tab of a bus bar and a connector contact having first and second substantially flat, parallel and mutually facing contact tails, comprising:

inserting the flat bus bar tab between the first and second contact tails to form a sandwich structure; and

10 spring clipping the sandwich structure whereby the flat bus bar tab is applied to both the first and second contact tails to thereby form said semi-permanent connection.

2. The method of claim 1, wherein inserting the flat bus bar tab
15 between the first and second contact tails comprises axially aligning said flat bus bar tab with said first and second contact tails.

3. The method of claim 2, further comprising covering the axially aligned bus bar tab and contact tails with an electrically insulating sleeve.

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4. The method of claim 1, further comprising at least partially covering the spring clipped sandwich structure with an electrically insulating housing.

25 5. A connector contact for semi-permanent connection to a generally flat tab of a bus bar, comprising:

at least one contact member for connection to an external electric conductor;

30 at least one generally flat contact tail electrically connected to the contact member and destined to overlap the bus bar tab; and

at least one U-shaped spring clip having a pair of claws defining a gripping region in which the bus bar tab and contact tail fit in overlapped position to form said semi-permanent connection between the bus bar tab and the contact tail.

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6. A connector contact as recited in claim 5, wherein said at least one generally flat contact tail is axial to the bus bar tab.

7. A connector contact as recited in claim 5, wherein said at least
10 one generally flat contact tail is perpendicular to the bus bar tab.

8. A connector contact as recited in claim 5, wherein said at least one U-shaped spring clip comprises two U-shaped spring clips for mounting on opposite sides of the overlapped busbar tab and contact tail.

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9. A connector contact as recited in claim 5, wherein said at least one generally flat contact tail comprises first and second generally flat, parallel and mutually facing contact tails defining between them a spacing to fit the bus bar tab and thereby form with said bus bar tab a sandwich
20 structure that fits in the gripping region defined between the pair of claws of the U-shaped spring clip.

10. A connector contact as recited in claim 9, wherein:
the first contact tail comprises first and second opposite lateral
25 edges, and first and second transversal slots opening in the first and second opposite lateral edges, respectively;

the second contact tail comprises third and fourth opposite lateral edges, and third and second transversal slots opening in the third and fourth opposite lateral edges, respectively;

30 said at least one U-shaped spring clip comprises a first U-shaped

spring clip for mounting over the first and third lateral edges, and a second U-shaped spring clip for mounting over the second and fourth lateral edges;

5 said first U-shaped spring clip comprises a first transversal stabilising leaf for insertion in the first and third transversal slots in view of preventing axial movement of the first U-shaped spring clip on the first and second contact tails; and

10 said second U-shaped spring clip comprises a second transversal stabilising leaf for insertion in the second and fourth transversal slots in view of preventing axial movement of the second U-shaped spring clip on the first and second contact tails.

11. A connector contact as recited in claim 5, wherein:

15 the contact tail comprises first and second opposite lateral edges, and a transversal slot opening in one of the first and second opposite lateral edges, respectively;

 the U-shaped spring clip is mounted over said one lateral edge; and

20 said U-shaped spring clip comprises a transversal stabilising leaf for insertion in the transversal slot in view of preventing axial movement of the U-shaped spring clip on the contact tail.

12. A connector contact as recited in claim 9, wherein:

25 said at least one contact member comprises first and second generally flat, parallel and mutually facing contact members defining between them a spacing to fit the external electric conductor;

 the first contact member and the first contact tail are mechanically interconnected through a first bridge member;

30 the second contact member and the second contact tail are mechanically and electrically interconnected through a second bridge member; and

the first contact member and first contact tail are mechanically and electrically connected to the second contact member and second contact tail through a third bridge member.

5 13. A connector for semi-permanent connection to a generally flat tab of a bus bar, comprising:

 at least one contact member for connection to an external electric conductor;

 at least one generally flat contact tail electrically connected to the
10 contact member and destined to overlap the bus bar tab;

 at least one U-shaped spring clip having a pair of claws defining a gripping region in which the bus bar tab and contact tail fit in overlapped position to form said semi-permanent connection between the bus bar tab and the contact tail; and

15 an electrically insulating housing for covering the contact tail and U-shaped spring clip.

 14. A connector as recited in claim 13, wherein said at least one U-shaped spring clip comprises two U-shaped spring clips for mounting on
20 opposite sides of the overlapped busbar tab and contact tail.

 15. A connector as recited in claim 14, wherein the electrically insulating housing comprises an electrically insulating sleeve for covering the contact tail, the bus bar tab and the spring clips.

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 16. A connector as recited in claim 15, wherein the bus bar is flat, and wherein the sleeve comprises a proximal end with diametrically opposite slots for receiving the bus bar.

30 17. A connector as recited in claim 16, wherein the slots have

respective closed ends, and wherein the first and second spring clips comprise respective barbs for resting against the closed ends of the slots.

18. A connector as recited in claim 13, wherein said at least one
5 generally flat contact tail comprises first and second generally flat, parallel and mutually facing contact tails defining between them a spacing to fit the bus bar tab and thereby form with said bus bar tab a sandwich structure that fits in the gripping region defined between the pair of claws of the U-shaped spring clip.

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17. A connector as recited in claim 16, wherein the electrically insulating housing comprises a sleeve for covering the first and second contact tails, the bus bar tab, and said at least one U-shaped spring clip.

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18. A connector as recited in claim 15, wherein:

the first contact tail comprises first and second opposite lateral edges, and first and second transversal slots opening in the first and second opposite lateral edges, respectively;

the second contact tail comprises third and fourth opposite lateral
20 edges, and third and fourth transversal slots opening in the third and fourth opposite lateral edges, respectively;

said at least one U-shaped spring clip comprises a first U-shaped spring clip for mounting over the first and third lateral edges, and a second U-shaped spring clip for mounting over the second and fourth lateral
25 edges;

said first U-shaped spring clip comprises a first transversal stabilising leaf for insertion in the first and third transversal slots in view of preventing axial movement of the first U-shaped spring clip on the first and second contact tails; and

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said second U-shaped spring clip comprises a second transversal

stabilising leaf for insertion in the second and fourth transversal slots in view of preventing axial movement of the second U-shaped spring clip on the first and second contact tails.

- 5 19. A connector as recited in claim 18, wherein the electrically insulating housing comprises a sleeve for covering the first and second contact tails, the bus bar tab, and the first and second U-shaped spring clips.
- 10 20. A connector as recited in claim 13, wherein the electrically insulating housing comprises an axial cavity in which said at least one contact member, said at least one contact tail, the bus bar tab and said at least one U-shaped spring clip are lying.
- 15 21. A connector as recited in claim 20, wherein the cavity of the housing comprises a pair of opposite axial guiding ridges, wherein said at least one U-shaped spring clip comprises two claws having respective slots, and wherein the ridges are respectively lying in the slots of the claws.
- 20 22. A connector as recited in claim 20, wherein the bus bar tab extends in a direction perpendicular to the axial cavity of the electrically insulating housing.
- 25 23. A connection assembly comprising:
a generally flat tab of a bus bar;
a connector contact comprising at least one generally flat contact tail overlapping the bus bar tab; and
at least one U-shaped spring clip having a pair of claws defining a gripping region in which the overlapped bus bar tab and contact tail are
30 fitted to form a semi-permanent connection between the bus bar tab and

the contact tail.

24. The connection assembly of claim 23, further comprising an electrically insulating housing covering the contact tail and U-shaped
5 spring clip.

25. The connection assembly of claim 24, wherein said at least one U-shaped spring clip comprises two U-shaped spring clips mounted on opposite sides of the overlapped busbar tab and contact tail.
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26. The connection assembly of claim 23, wherein said at least one generally flat contact tail comprises first and second generally flat, parallel and mutually facing contact tails defining between them a spacing in which the bus bar tab is fitted to thereby form with said bus bar tab a sandwich
15 structure inserted in the gripping region defined between the pair of claws of the U-shaped spring clip.

27. The connection assembly of claim 26, wherein said at least one U-shaped spring clip comprises two U-shaped spring clips mounted on
20 opposite sides of the sandwich structure.